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Portela II (Leiria, Portugal): a specialized lithic workshop for the production of Vale Comprido points in Proto-Solutrean times?

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The severe cooling and the consequent expansion of the ice sheets during the Last Glacial Maximum (LGM), 27–19 ky ago, had a major impact on plant, animal and human populations. In Southwest Europe, a pan-European technocomplex, using bone or wood projectile points armed with lithic barbs (Gravettian), was replaced by a regional technocomplex using stone points as hunting weaponry: the Solutrean.

The origin of the Solutrean has been a central issue in the study of the European Upper Paleolithic. Different authors placed the origins of the Solutrean in Africa (Santa-Olalla and Almagro Basch saw similarities with the Aterian), France (Smith thought that Gravettian Font Robert points could be related) or Iberia (a human refuge with a milder climate, according to Strauss). Thus, this cultural change was explained by human migrations or simple adaptation to a colder environment [1].

Nevertheless, in the mid-1990s, a transition phase between the Gravettian and the Solutrean was identified in the littoral of central Portugal, Estremadura [5;3]. This phase is characterized by the presence of a particular type of stone tool: the Vale Comprido point [4]. Since then, its use as an index fossil of this phase has been successful in Spain (Peña Capón and Cueva Ambrósio) and in France (Abri Casserole and Marseillon), for example.

The Portela II archaeological site was identified in 2009, during the construction of a sewerage piping. A preventive excavation was carried out, only in the area directly affected by the works (10m²); the site is thought to extend beyond the limits of the excavated area. About 800 lithic artefacts were recovered, including 15 Vale Comprido points and a high refitting potential was identified. This poster will present the results of the technological study of the lithic assemblage. A single reduction sequence was identified: the production of elongated, naturally-pointed blanks that were subsequently transformed into Vale Comprido points, the only tools recovered at Portela II. Chippage found at the site indicates that the typical dorsal basal thinning retouch of the Vale Comprido points was performed locally.

The characteristics of this site lead us to consider a new archaeological intervention in 2020, in the scope of the PALEORES-CUE project. In fact, only the enlargement of the excavated surface can confirm whether this was a Vale Comprido points workshop or whether the previous excavation hit a specialized knapping area of the base camp. This site shows some similar features to the one excavated by M. Heleno in the 1940s at Vale Comprido Encosta, in the Rio Maior region. Current excavation methodology will clarify this issue and will enable testing the common assumption, within the Portuguese archaeological community, of Heleno's sampling bias [2].

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